

Minutes of the 271st meeting of Expert Appraisal Committee held on 26th - 27th August, 2021 through Video Conferencing for the projects related to Infrastructure Development, all Ship breaking yards including ship breaking units 7(b); Industrial Estate/Parks/Complexes/Areas, Export Processing Zones, Special Economic Zones, Biotech Parks, Leather Complexes7(c); Ports,harbours,breakwaters,dredging7(e) and National Highways7(f)

The 271st Meeting of Expert Appraisal Committee (EAC) of Infra-1 (IA-III) was held through Video Conferencing at the Ministry of Environment, Forest & Climate Change (MoEF&CC), Indira Paryavaran Bhavan, New Delhi on **26th August, 2021** under the Chairmanship of Dr. Deepak Arun Apte. A list of participants is annexed as **Annexure-A**.

1. OPENING REMARKS OF THE CHAIRMAN

At the outset, Dr. Deepak Arun Apte, Chairman, EAC welcomed the Members of the EAC and requested Shri Amardeep Raju, the Member Secretary of the EAC to initiate the proceedings of the meeting with a brief account of the activities under taken by the Ministry under Infra-1 Division.

2. CONFIRMATION OF THE MINUTES OF THE LAST MEETING

The Committee confirmed the Minutes of 269th EAC meeting held on 10th August, 2021.

3. AGENDA WISE CONSIDERATION OF PROPOSALS:

Agenda wise details of proposals discussed and decided in the meeting are as following:

Agenda No.3.1

Construction of 2/4 lanning road with paved shoulder and NH configuration from Gopalpur-Satpada in the state of Odisha under Bharatmala Pariyojana by M/s National Highways Authority of India - Terms of Reference [Proposal No. IA/OR/NCP/224593/2021 and File No. 10/36/2021-IA.III]

“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

3.1.1. The project proponent M/s National Highways Authority of India made a presentation along with the consultant M/s Chaitanya Projects Consultancy Pvt. Ltd. through Video Conferencing and provided the following information-

3.1.2. The proposed project is of the highway 516-A starts from its junction with NH-516 near Gopalpur Port (19°18'43 "N 84°57'20"E) in Ganjam district and terminates at its junction with NH-316 near Satpada (19°40'56"N 85°27'48"E) in Puri District, Odisha. The length of the proposed alignment is approx.72.00 km. The proposed Right of Way (RoW)

is 30 – 45 m.

3.1.3. The proposed project falls under 7(f) - Highway, Category-A, as per EIA notification 2006. Total investment/cost of the project is Rs 65900 Lakhs (659.00 Cr).

3.1.4. Land use/ Land cover of the project site is as following:

S.No.	Land use / Land cover	Area (ha)	Percentage %	Remarks if any
1.	Private land	285.00	88.00%	
2.	Government land	9.00	0.03	
3.	Forest land	30.000	9.27	
	Total	324.00	100.00	

3.1.5. Land use / Land cover around 10 km radius of project site (1 km in case of Highway projects).

S.No.	Land use / Land cover	Area (ha)	Percentage %	Remarks if any
1.	Private land	13046	90.60	-
2.	Government land	374	2.60	
3.	Forest land	980	6.80	
	Total	14400	100.0	

3.1.6. The terrain of the alignment is basically flat to undulating in nature and some low lying areas.

3.1.7. Total requirement of water for the construction is estimated at 1050 KLD which will be met through surface water sources and ground water proposed to be used only for camp site for transient period after obtaining the necessary from permissions from competent authority. Ground water proposed to be used only for camp site for transient period after obtaining the permissions from appropriate authority.

3.1.8. Tree cutting: About 7500 trees are likely to be affected due to proposed RoW of 45 m.

3.1.9. Diversion of forest land: Forest area of approx. 30 ha is involved, however, if any area is identified during detailed survey, clearance from competent authority would be undertaken.

3.1.10. The Proposed alignment is passing through 7.0 km from boundary of Chilika wildlife sanctuary (Nalaban Bird Sanctuary).

3.1.11. The proposed alignment may cross through CRZ I, II, III and CRZ IV areas at some changes as will be identified through CRZ maps prepared by ORSAC Bhubaneswar.

3.1.12. Land acquisition and R&R issues: The Project requires approx. 324 ha land. The land will be acquired as per procedure laid down in RFCT LARR Act, 2013. Total 325 no. of structures are coming in the proposed RoW.

3.1.13. Employment potential: During the construction of the road project around 250 persons would be employed temporarily for a period of 2.0 years. However, due to construction of toll plazas approx. 40 persons will be employed on permanent basis. Preference will be given to local people for employment.

3.1.14. Benefits of the project: The proposed highway shall result in a shorter distance and

travel time and will ensure uninterrupted flow of traffic. The proposed road would act as the prime artery for the economic flow to this region. It will enhance economic development, provide employment opportunities to locals, strengthen tourist development, ensure road safety, and provide better transportation facilities and other facilities such as way side amenities. Vehicle operating cost will also be reduced due to improved road quality. The road will also provide connectivity to ports. The compensatory plantation and road side plantation shall further improve the air quality of the region.

3.1.15. Details of Court cases: No court case is pending against the proposed project.

3.1.16. During the deliberation EAC observed the following:

- i. *Why cannot NHAI use the existing road (NH 5). Expansion can be done at the existing road NH 5.*
- ii. *The proposed alignment that is east to the Chilika Lake and will bisect Chilka Lake near the lake mouth and will pass through series of watershed and river bed areas. Lots of Pillars will be laid to cross the Island which will spoil the natural endowments and aquatic ecosystem of the Island as well as will have serious impact on its ecology.*
- iii. *The other alternate route (Red Line) proposed falls under CRZ area. NHAI engineers and consultants should focus on environmental aspects while preparing the proposal so as to protect the natural phenomenon.*
- iv. *The area selected by NHAI is not optimal as per environment norms.*
- v. *All the present alignments selected by NHAI are not optimal as per environment norms and will prove extremely deleterious for Chilika Lake and its biodiversity and livelihood of several thousand people depend on it for fishery and tourism. Thus alternate alignments should be explored that will avoid passing through Chilika or nearby watershed areas.*

3.1.17. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 271st meeting on 26th August, 2021 and **deferred** the proposal stating above mentioned points. The sub-Committee will conduct a site visit once the revised proposal is submitted.

Agenda No. 3.2

Development of Economic Corridors, Inter-corridors, feeder routes and Coastal Road to improve the efficiency of freight movement in India (Lot-3/Odisha & Jharkhand/Package-2) Raipur-Vishakhapatnam (Ch. 0.000 - Ch. 124.661 km) (Length 124.661 km) in the State of Chhattisgarh under Bharatmala Pariyojana by M/s National Authority of India (NHA) - Environmental Clearance [Proposal No. IA/CG/NCP/131198/2019 and File No. 10-3/2020-IA.III]

“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

3.2.1 The project proponent along with the EIA consultant M/s Enviro Infra Solutions Pvt. Ltd., Ghaziabad in association with CEMC Pvt. Ltd. Bhubaneswar made a presentation through Video Conferencing and provided the following information: -

3.2.2 The Ministry of Road Transport and Highways (MoRTH) through National Highways Authority of India (NHAI) has decided the assignment of Development of Economic Corridors, Inter-corridors and feeder routes and Coastal road primarily to improve the efficiency of freight movement in India under Bharatmala Pariyojana Lot-3/Odisha & Jharkhand/Package-2 having length of proposed alignment 464.662 km (which is totally green field) which starts from near Abhanpur (ch. 0.000) and ends at Sabbavaram village in Vishakhapatnam district.

3.2.3 The proposed NH is Green field alignment project and proposed for 6 lane carriageway. The project highway starts at CH: 0+000 (21°05'18.85"N 81°45'01.40"E) from Jhanki village in Abhanpur Tehsil, Raipur district and ends at design Ch. 124+661 (20°01'44.59"N 81° 51'58.13"E) at Marangpuri village of Baderajpur tehsil in Kondagaon district in the state of Chhattisgarh having a total length of approx. 124.661 Kms. The proposed RoW is 60 m in general & 45 m in Forest area.

3.2.4 The proposed project falls under 7(f) - Highway, Category-A, as per EIA notification 2006. Total investment/cost of the project is Rs 366714 Lakhs (3667.14Cr).

3.2.5 The Terms of Reference (ToR) of the proposal was considered in 230th Meeting on 29th January, 2020 and the ToR was granted by EAC vide letter no. F. No. 10-3/2020-IA.III, dated 02.03.2020 and Amendment ToR was granted by EAC vide letter no. F. No. 10-3/2020-IA.III, dated 04.03.2021.

3.2.6 Landuse/Landcover of the proposed project site is as following:

S. No.	Particulars	Area (sq. km)	Percentage (%)
1.	Agricultural Land	151.34	59.07
2.	Dense Forest	35.55	13.88
3.	Land With/Without Scrub	12.19	4.76
4.	Open Forest	36.85	14.39
5.	Plantation	0.26	0.10
6.	Settlement	13.98	5.46
7.	Water Body	6.01	2.35
	Total	256.19	100

3.2.7 The Land use pattern on 10 km on either side of the highway is primarily comprises of predominantly agricultural land, followed by Reserve & Protected forest land, land for cattle grazing, village settlements and village ponds/nallah. The proposed alignment passes mostly through uninhabited area avoiding village establishments. The agriculture practiced is mostly multi crop due to the network of canals/rivers and main crops grown in the area are Wheat, maize, soybean etc. The proposed highway lies generally in plain terrain. However certain length of highway lies in rolling & hilly terrain.

3.2.8 The natural drainage of the project impacted area shall be maintained through

improvement of 174 nos. of culverts, 06 nos. of major bridges and 34 nos. minor of bridges. One tunnel has also been proposed at Ch. 106+820 to Ch. 109+650 having total length of 2.830 km. The proposed alignment does not pass through any flood prone area.

3.2.9 The total water requirement is 3830411 KL during construction and will be extracted from local surface water resources i.e. from local surface/ground water (which is easily available) after getting necessary permission from concerned authority by the appointed contractor. Extraction of Ground water is not proposed.

3.2.10 Public Hearing was conducted in Raipur, Kanker, Kondagaon and Dhamtari districts as following:

S No	Date	Location
1	07.01.2021	Office of the Chief Executive Officer Janpad Panchayat Abhanpur, Tehsil- Abhanpur, District Raipur
2	28.01.2021	Govt. Higher Secondary School, Dudhawa, Tehsil- Narharpur, Dist- Kanker
3	05.02.2021	Govt. Higher Secondary School, Vishrampuri, Play Ground Vishrampuri, Dist- Kondagaon
4	15.02.2021	Kurud Stadium, Tehsil- Kurud, Dist- Dhamtari

3.2.11 Land acquisition and R&R issues: The land acquisition for the proposed highway is 684.475 ha out of which 228.0425 ha is forest land and 456.4325 ha is Non-Forest Land. The stage-1 Forest Clearance is under process at DFO level (Proposal No. FP/CG/ROAD/119866/2021). The proposed RoW of the project is 60 m in General & 45m in Forest.

Sl.No	State	Type of Land	Area in Ha.	% Area
1	Chhattisgarh	Non-Forest Land	456.4325	66.68
2		Forest Land	228.0425	33.32
Total			684.475	100

3.2.12 Adequate compensation would be paid as per the measurement and prevailing norms of state government. Further, the compensation towards the acquisition of land will be made as per the provisions of the NH Act 1956 and applicable clauses and procedures as laid down in the RFCT LARR Act, 2013. The estimated cost for Rehabilitation & Resettlement including land cost has been worked out to Rs. 227.61 Crores.

3.2.13 The proposed alignment does not pass through any Wildlife Sanctuary/National Park and its eco sensitive zone. However the proposed alignment falls within 10 km boundary from Sitanadi Wildlife Sanctuary. In this regard, it is submitted that the alignment is being fixed in consultation with the forest department so that after publishing the final ESZ notification this proposed alignment will be away from the ESZ boundary. Further it is also submitted that application for SBWL and NBWL is submitted in Parivesh portal for the clearance of Wildlife as the Notification of ESZ is in draft stage. The proposed project does not pass through any CRZ locations.

3.2.14 Waste Management: About 500 kg/day during construction phase and 100 kg/day (approx.) during operation phase at tolls and wayside amenities area within PROW may be generated. Bio degradable waste shall be disposed through bio composting and other waste

through landfill site.

3.2.15 Tree cutting: The alignment will involve cutting of approx. 38,433 (At Forest land: 25,665 nos. of trees and at Non Forest land: 12,768 nos. of trees). The proposal is as per IRC SP-21 an available ROW apart from the statutory requirement/Local Law.

3.2.16 Energy conservation: Provision for solar power plant has been recommended in the nearby villages and it's budget have been incorporated in EMP budget.

3.2.17 Rain Water Harvesting: Rainwater harvesting structures shall be provided at the interval of 500 m on either sides of carriageway as per availability of RoW and depending on the water table of first aquifer. The cost for construction of 180 rainwater harvesting structures is Rs 7.50 Crores including its maintenance.

3.2.18 Employment potential: During the construction of the road project around 1000 persons would be employed temporarily. However due to construction of toll plazas approx. 100 persons will be employed on permanent basis.

3.2.19 Benefits of the Project- The proposed project would act as the prime artery for the economic flow to this region. It will enhanced connectivity between rural & urban population, which will benefit the all sections of the society like general population, small-medium-large scale industries, farmers, businessmen etc. It will improve higher education & modern health facilities. It will improve economic scenario of the state and country. Faster transportation will strengthen tourist development in the area. Improved road connectivity will help in better implementation and management of government schemes.

3.2.20 Details of Court cases: No court case is pending against the proposed project.

3.2.21 *During the deliberation, EAC observed the following*

- i. *As Sitanadi Tiger Reserve is situated at a distance of 0.7 Km from the alignments, therefore a detailed plan for animal crossing areas (elephant/ Tiger) be submitted.*
- ii. *The proposed alignment is passing through 2.83 Km long tunnel at Ch. 106+820 to Ch. 109+650.*
- iii. *Mahanadi River is flowing at a distance of 1.5 km in East.*
- iv. *Stage -I Forest Diversion Proposal is under process at DFO level.*
- v. *Movement of elephant will be there in the area of the proposed alignments.*

For the above points raised by the EAC, PP has submitted the approved Wildlife Management & Conservation Plan, KML file marking all animal underpass, viaduct & tunnel (chainage wise) and design of animal underpasses & viaduct. To minimize the wild animal road accidents and ease of their movement from one area to another while crossing the road, it is proposed to construct viaducts and under passes at critical points considering the norms laid down by WII (2016) "Eco-Friendly Measures to Mitigate Impacts of Linear Infrastructure on Wildlife" and as identified in the wildlife conservation plan. The estimated expenditure on wildlife management plan would be 1205.20 lakh considering that the cost of Highway is 4068.16 Cr.

3.2.22 The EAC, taking into account the submission made by the project proponent, had a

detailed deliberation in its 271st meeting on 26th August, 2021 and **recommended** the proposal for grant of Environmental Clearance with specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects.

- i. The environmental clearance is subject to obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife, as applicable, as per the Ministry's OM dated 8th August, 2019 and clearance from National Tiger Conservation Authority (NTCA) and Project Elephant, MoEFCC . Grant of environmental clearance does not necessarily imply that Wildlife Clearance and other clearances shall be granted to the project and that their proposal for Wildlife Clearance and other clearances will be considered by the respective authorities on its merit and decision taken.
- ii. All commitments made in the Wildlife Management & Conservation Plan submitted to the Ministry shall be implemented in letter and spirit. The status of implementation of Wildlife Management & Conservation Plan shall be submitted to the Regional Office of the Ministry along with 6 monthly compliance report.
- iii. Water quality and Bioassay test of Mahanadi River shall be monitored quarterly and submitted to State Pollution Control Board and the RO of the MoEFCC concerned.
- iv. Road side tree plantation of local fruit bearing species or in nearby village in collaboration with Gram Panchayats.
- v. Wildlife movement during the construction be monitored by forest department and if found necessary additional over/underpasses be developed. Provision for the same be made in the project budget.
- vi. Quarry areas shall be barricaded during mining operations. The abandoned quarry shall be developed as water reservoirs with proper fencing around quarry area. Details for Quarry area operation and rehabilitation given the EIA report shall be followed.
- vii. In all the construction sites within 150 m of the nearest habitation, noisy construction work such as crushing, concrete mixing will be stopped during the night time between 10.00 pm to 6.00 am. No noisy construction activities will be permitted around educational institutions/health centres (silence zones) up to a distance of 100 m from the sensitive receptors. All plants and equipment used in construction shall strictly conform to the CPCB/SPCB noise standards.
- viii. Traffic Control Devices/Road Safety Devices/ Roadside Furniture including various types of cautionary, informatory, regulatory as mandatory signboards, road markers, studs, etc. shall be provided at appropriate locations all along the project stretch in accordance with the specifications laid down in Manual of Specifications and Standards for Expressways (IRC: SP:99-2013) and IRC:8, IRC:25, IRC:26, IRC:35, IRC:67, IRC:79, IRC:103 and Section 800 of MORTH Specifications.
- ix. Prepare the traffic prediction report for complete project (including all packages of this project) considering the cumulative impact of the traffic on the environment and submit to the Ministry and concerned Regional Office within 3 months.

- x. All the major, minor bridges and culverts should not affect the drainage systems. Flood plains of the rivers/ drainage systems are not to be disturbed.
- xi. Afforestation using compensatory plantation in the ratio of 1:10 shall be carried out by the state forest department. Native tree species shall be provided as per the IRC Guidelines on Landscaping and Tree Plantation (IRC:SP:21-2009). Plantation should be purely of native trees and Ficus species on both sides of the alignment.
- xii. Project alignment should be managed in such a way to save the Heritage/old trees supposed to be affected by the proposed alignment.
- xiii. The proponent shall obtain permission from the competent authorities for tree felling along the proposed alignment.
- xiv. Apart from land compensation, the loss for crop has also to be compensated.
- xv. No Ground water shall be extracted and used. Approval/permission of concerned authority shall be obtained before drawing surface water from canal or any other sources.
- xvi. Rain water harvesting pit shall be at least 3 - 5 m above the highest ground water table.
- xvii. Proponent shall keep the finish road level sufficiently elevated from ground level with provision of railing on both sides to restrict animal crossing in order to avoid the possibility of wildlife injury/death. Major water bodies have been observed in the vicinity of the proposed road alignment & may be potential human elephant conflict points, appropriate nos of animal safe passages as per the guideline framed by the Wildlife Institute of India and in consultation with Chief Wildlife Warden.
- xviii. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the Public Hearing. The project proponent shall initiate the activities proposed by them, based on the commitment made in the Public Hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory afforestation etc., either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also become part of EMP and shall be implemented.

Agenda No. 3.3

Development of access controlled Amritsar-Bathinda Greenfield Highway starting from Delhi-Amritsar Expressway near Sultanpur Lodhi (village Tiba) and terminate at Bathinda (near Sangat Kalan) as part of Amritsar-Jamnagar Economic Corridor under Bharatmala Pariyojana (Total Length 155 km) by M/s National Highways Authority of India - Environmental Clearance [Proposal No. IA/PB/NCP/224855/2020 and File No. 10-65/2020-IA.III]

The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

3.3.1 The project proponent along with the EIA consultant M/s Enviro Infra Solutions Private Limited made a presentation through Video Conferencing and provided the following information:-

3.3.2 The Ministry of Road Transport and Highways (MoRTH) through National Highways Authority of India (NHAI) has decided the Bharatmala Pariyojana” an Umbrella scheme of road development project. The Ministry of Road Transport and Highways has decided on the development of Greenfield highways in addition to augmentation of the capacity of existing national highways to cope with the situation and for safe/efficient movement of traffic. This project aims to improve connectivity particularly on economic corridors, border areas and to remote areas with an aim of rapid and safe movement of cargo to boost exports. International trade considered as a key aspect in this scheme have been given special focus.

3.3.3 The proposed project is a green field highway project from Amritsar – Bhatinda in the state of Punjab. This Greenfield Highway starting from Delhi – Amritsar Expressway near Sultanpur Lodhi (Village Tiba) (31° 18' 09.68" N, 75° 12' 25.85" E) and terminate at Bahtinda (Near Sangat – Kalan) (30° 04' 25.26" N 74° 52' 00.63" E) as a part of Amritsar – Jamnagar. The project traverses through Districts Bathinda (Tehsil - Talwandi Sabo, Bathinda, Rampura Phul), Jalandhar (Tehsil – Shahkot,), Moga (Tehsil – Moga, Nihal Singhwala) and Kapurthala (Tehsil - Sultanpur Lodhi). The total length of the proposed project is about 155 km.

3.3.4 The proposed project falls under 7(f) - Highway, Category-A, as per EIA notification 2006. Total investment/cost of the project is Rs 600000 Lakhs (6000.00 Cr).

3.3.5 The Terms of Reference (ToR) of the proposed project was considered in 246th Meeting on 20th -21st October, 2020 and the ToR was granted by EAC vide letter No. 10-65/2020-IA.III, dated 09.11.2020.

3.3.6 Public Hearing was conducted in Kapurthala, Jalandhar, Moga and Bathinda districts has been Attached as Annexure -1. The details of public hearing held district wise is as following:

SI. No	Date	Revised Date	Name of District	First Location	Revised Location
1	21-01-2021	17.03.2021	Kapurthala	Market Committee Office Campus, Sultanpur Lodhi	Virsa Vihar Auditorium, Kapurthala
2	21-01-2021	17.03.2021	Jalandhar	BDPO Office, Lohia Khas	District Administration Complex, Jalandhar
3	21-01-2021	18.03.2021	Moga	Dana Mandi, Moga	Dana Mandi Moga

4	21-01-2021	23.03.2021, 18-06-2021	Bathinda	Govt. Senior Secondary School, Lehra Mohabat	District Administration Complex, Bathinda
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3.3.7 The existing land use around the proposed National Highway primarily comprises of mainly agricultural cropland, some built up land, Water bodies, Protected Forest land and wasteland. The proposed alignment passes mostly through uninhabited area avoiding village establishments. The agriculture practiced is mostly multi crop due to the network of canals/rivers and main crops grown in the area are Wheat, rice, maize, sugarcane, cotton etc. The proposed highway lies generally in plain terrain.

3.3.8 The natural drainage of the project impacted area shall be maintained through improvement of 275 nos. of culverts, 02 nos. of major bridges and 27 nos. of minor bridges. The proposed alignment does not pass through any flood prone area.

3.3.9 Land acquisition and proposed right of way: The land acquisition for the proposed highway is 1225.0 ha out of which 26.07 ha is forest land. The stage-1 clearance is under process at DFO level. The proposed RoW of the project is 70 m.

S. No	State	Type of Land	Area in Ha.	% Area
1	Punjab	Private Land and Government land	1198.93	97.87
2		Forest Diversion	26.07	2.13
Total			1225.00	100

3.3.10 The proposed alignment does not pass through any Wildlife Sanctuary/National Park and its eco sensitive zone. The proposed project does not passes through any CRZ locations.

3.3.11 Water requirement: The peak water requirement is 5080 KLD during construction stage and will be extracted from local surface water resources i.e. from local surfaced water (which is easily available) after getting necessary permission from concerned authority by the appointed contractor. No Groundwater shall be extracted.

3.3.12 Rain Water Harvesting: Rainwater harvesting structures shall be provided at the interval of 500 m on either sides of carriageway as per availability of RoW and depending on the water table of first aquifer (Approx. 310 nos. of structures shall be constructed). The total cost of the rainwater harvesting structures including its maintenance is Rs. 3,10,00,000 and this cost has been covered in the EMP cost.

3.3.13 Waste Management: : About 600 kg/day during construction phase and 40 kg/day during operation phase at tolls and wayside amenities area within ROW may be generated. Bio degradable waste shall be disposed through bio composting and other waste through landfill site.

3.3.14 Tree cutting: The alignment will involve cutting of approx. 2,299 no of trees of which 12 numbers of fruit trees and 2287 numbers of non-fruit trees. The avenue plantation will be carried out as per IRC SP-21 and National Green Highway policy 2015 within the available ROW. About 101256 no's trees has been proposed to be planted as compensatory plantation.

3.3.15 Rehabilitation involved: Adequate compensation would be paid as per the measurement and prevailing state government norms. Further the compensation towards

the acquisition of land will be made as per the provisions of the NH Act 1956 and applicable clauses and procedures as laid down in the RFCT LARR Act, 2013. The estimated cost for Land and Rehabilitation & Resettlement including land acquisition has been worked out to Rs. 1655 Crores.

3.3.16 Employment potential: The proposed highway is expected to generate 500 employments.

3.3.17 Benefits of the project -. The proposed project would act as the prime artery for the economic flow to this region. It will enhance connectivity between rural & urban population which will benefit all the sections of the society like general population, small-medium-large scale industries, farmers, businessmen etc. Higher education and modern health facilities will be improved. The proposed project will strengthen both rural and urban economies which in turn will improve economic scenario of the state and country. Faster transportation will strengthen tourist development in the area. The proposed highway will connect some religious/tourist places.

3.3.18 Details of Court cases: No court case is pending against the proposed project.

3.3.19 *During the deliberation, the EAC noted the following:*

- i. *The Public Hearing at Kapurthala was held on 17th March, 2021. The Deputy Commissioner vide its letter dated 10th August, 2021 mentioned that no farmer/participant raised any environmental issues during the hearing. Public Hearing at Moga took place on 18th March, 2021. Regarding Public Hearing at Bhatinda, it has been observed that the meeting was scheduled on 21st January, 2021 and postponed to 23rd March, 2021. From 23rd March, 2021 the meeting was postponed to 7.04.2021, and finally the Public Hearing was conducted on 18th June, 2021. However, no public representative was present during the meeting and the PH was concluded on the direction of presiding officer (Addl Deputy Commissioner)*

3.3.20 The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 271th meeting on 26th August, 2021 and **recommended** the proposal for grant of Environmental Clearance with specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. In borrow pits, the depth of the pit shall be regulated such that the sides of the excavation will have a slope not steeper than 1:2, from the edge of the final section of bank. Soil erosion checking measures shall be carried out. Details for Borrow area operation and rehabilitation given in EIA report shall be implemented.
- ii. Quarry areas shall be barricaded during mining operations. The abandoned quarry shall be developed as water reservoirs with proper fencing around quarry area. Details for Quarry area operation and rehabilitation given the EIA report shall be followed.
- iii. In all the construction sites within 150 m of the nearest habitation, noisy construction work such as crushing, concrete mixing will be stopped during the night time between 10.00 pm to 6.00 am. No noisy construction activities will be permitted around educational institutions/health centres (silence zones) up to a distance of 100 m from the sensitive receptors. All plants and equipments used in

- construction shall strictly conform to the CPCB/SPCB noise standards.
- iv. Traffic Control Devices/Road Safety Devices/ Roadside Furniture including various types of cautionary, informatory, regulatory as mandatory signboards, road markers, studs, etc. shall be provided at appropriate locations all along the project stretch in accordance with the specifications laid down in Manual of Specifications and Standards for Expressways (IRC: SP:99-2013) and IRC:8, IRC:25, IRC:26, IRC:35, IRC:67, IRC:79, IRC:103 and Section 800 of MORTH Specifications.
 - v. Prepare the traffic prediction report for entire stretch of the project (including all packages of this project) considering the cumulative impact of the traffic on the environment and submit to the Ministry and concerned Regional Office within 3 months.
 - vi. All the major, minor bridges and culverts should not affect the drainage systems. Flood plains of the rivers/ drainage systems are not to be disturbed.
 - vii. Afforestation using compensatory plantation in the ratio of 1:10 shall be carried out by the state forest department. Native tree species shall be provided as per the IRC Guidelines on Landscaping and Tree Plantation (IRC:SP:21-2009). Plantation should be purely of native trees and Ficus species on both sides of the alignment.
 - viii. Project alignment should be managed in such a way to save the Heritage/old trees supposed to be affected by the proposed alignment.
 - ix. The proponent shall obtain permission from the competent authorities for tree felling along the proposed alignment.
 - x. Apart from land compensation, the loss for crop has also to be compensated.
 - xi. No Ground water shall be extracted and used. Approval/permission of concerned authority shall be obtained before drawing surface water from canal or any other sources.
 - xii. Rain water harvesting pit shall be at least 3 - 5 m above the highest ground water table.
 - xiii. Proponent shall keep the finish road level sufficiently elevated from ground level with provision of railing on both sides to restrict animal crossing in order to avoid the possibility of wildlife injury/death. Major water bodies have been observed in the vicinity of the proposed road alignment & may be potential human elephant conflict points, appropriate nos of animal safe passages as per the guideline framed by the Wildlife Institute of India and in consultation with Chief Wildlife Warden.
 - xiv. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the Public Hearing. The project proponent shall initiate the activities proposed by them, based on the commitment made in the Public Hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory afforestation

etc., either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also become part of EMP and shall be implemented.

Agenda No. 3.4

Amendment in Environmental and CRZ Clearance for balance work of 4th container terminal and marine container terminal by M/s Jawaharlal Nehru Port Trust, Navi Mumbai, Maharashtra
[Proposal No. IA/MH/NCP/224762/2021 and File No. 10-32/2018-IA.III]

The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

The EAC noted that the proponent has not submitted the necessary recommendations from SCZMA. The EAC, thus **deferred** the proposal and directed PP to submit recommendation from SCZMA for further consideration of the project.

Agenda No. 3.5

Development of 6 lane Access Controlled Greenfield Highway of Shamli – Ambala Sec. from Km Ch. 0+000 to Km Ch. 120+970 (Total length: 120.970 km) in the States of Uttar Pradesh and Haryana under Bharatmala Pariyojana Phase II (Lot-9/Package-1) by M/s National Highways Authority of India - Terms of Reference
[Proposal No. IA/HR/NCP/221492/2021 and File No. 10/33/2021-IA.III]

“The EAC noted that the Project Proponent/consultant has given under taking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent”

3.5.1 The project proponent along with EIA consultant M/s Ambiental Global Private Limited, GZB made a presentation before EAC in its 271st meeting on 26th – 27th August, 2021 through Video Conferencing and provided the following information-

3.5.2 The proposed project is for development of 6-Lane Access Controlled Greenfield Highway of Shamli– Ambala Section from Km Ch. 0+000 to Km Ch. 120+970 in the States of Uttar Pradesh and Haryana under Bharatmala Pariyojana Phase II (Lot-9/Package-1)”. The proposed highway starts (Start Location: 29° 32'57.51" N 77°26'33.68"E) from Village Gogwan Jalalpur near Thanabhawan in district Shamli of Uttar Pradesh State and terminates (End Location: 30°24'48.27" N, 76° 47'1.26"E) on Ambala-Chandigarh

Highway near village Sadopur near Ambala City in State of Haryana. The alignment passing through six districts namely Shamli and Saharanpur in the State of Uttar Pradesh and Yamunanagar, Karnal, Kurukshetra and Ambala in the State of Haryana. The total length of the project alignment is approx. 120.970 km.

3.5.3 The proposed project falls under 7(f) - Highway, Category-A, as per EIA notification 2006. Total investment/cost of the project is Rs 396380 Lakhs (3963.80 Cr).

3.5.4 Land use/ Land cover (approx. area) of the project site is as following:

S. No	Landuse/Landcover	Area (ha)	Percentage %	Remarks if any
1.	Private land	65	90.33	Agriculture Land
2.	Government land	677.5	8.67	Agriculture/Barren/other Land
3.	Forest land	7.5	1.0	Strip Plantation
	Total	750	100	-

3.5.5 The land use pattern on 10 km either side of the project road is predominately agriculture followed by habitation, waste land. The area is alluvial plains of Yamuna river basin. The streams run north to south. The terrain of the alignment is basically plain with minor undulating in nature.

3.5.6 Water bodies: The proposed alignment consists of 03 nos. of rivers, 10 Nos. of Canals, and about 05 Nos. of Nalals. Details of number of Nalals (seasonal & perennial) are being worked out by detailed topographic surveys. There shall be no major impact on the drainage system as sufficient numbers of structures (such as culverts, minor bridges and major bridges) will be constructed. The balancing culverts shall be provided to ensure no water logging in the area and all storm water shall be channelized systematically to the nearest natural stream.

3.5.7 Water requirements: Approx. 24900 KLD Water will be extracted from suitable surface sources (river/canals) or ground water after obtaining necessary permissions from the competent authority. Ground water proposed to be used only for camp site for transient period after obtaining the permissions from appropriate authority.

3.5.8 Tree cutting: The alignment will require cutting of approximately 7966 trees out of which approx. 400 nos. of trees falls in protected forest land and remaining 7566 falls in the private agriculture field. Most of the trees falling along the alignment are the part of agro forestry such as Mango, Poplar and other fruit bearing trees. The actual no. of trees proposed to be felled will be submitted in Final EIA after joint enumeration with appropriate authorities of respective State Government. Efforts will be made to minimize the trees loss by restricting trees cutting within formation width. Avenue plantation shall be carried out as IRC: SP: 21:2009“Guidelines on Landscaping and Tree Plantation” on available RoW apart from statutory requirements.

3.5.9 Diversion of forest land: The proposed project highway passes through protected forest land of approx. 7.5 ha where it crosses canal side/roadside/railway side plantation. The actual land area data may be worked out once all land record data are compiled. Application will be submitted after joint survey with forest department.

3.5.10 The alignment does not pass through any wild life sanctuary, protected area and its

eco sensitive zone. Yamuna Nagar Thermal Power Plant, Panipat Thermal Power Plant and Rajpura Thermal Power Plant at a distance of 25 km, 90 km and 100 km, respectively, of proposed project alignment.

3.5.11 Land acquisition and R&R issues: The land acquisition for the proposed project is about 750 ha. Approx. 140 nos. of structures (Pucca Building, others structures like compound walls, temporary sheds, huts etc.) are coming in the proposed RoW. The land will be acquired as per the procedures laid down in NH Act, 1956 and RFCTLARR Act, 2013. The proposed Right of Way (RoW) of the project is 60 m.

3.5.12 The proposed road will have ROBs (02), Major Bridges (05), Minor Bridges (13), and Vehicular underpass (33), LVUP (21), Interchanges (08) and Culverts-(208).The number of structures may vary to an extent for underpasses and culverts.

3.5.13 There will be provision of 2 X toll plaza on carriageway at starting and towards end of alignment. There will be 12 toll booths on each toll plaza as per MoRT&H policy .4 X Interchanges will have toll plaza on slip roads. The total No of Toll Booths will be 56 in 4 Interchanges. There will be provision of 6 nos. of way side amenities (3 each side) along the proposed highway as per NHAI guidelines.

3.5.14 The proposed road shall be constructed to IRC: SP: 87 -2019, “Manual of Specifications and Standards for Six Laning of Highway Public Private Partnership” and other relevant IRC specifications on design manual as per normal practice. The mode of execution will be decided later. All safety measures will be provided as per IRC: SP: 55, “Guidelines on Traffic Management in Work Zones” and prevailing circular/notification of govt. of India/NHAI.

3.5.15 Fly ash will be used in the project as per fly ash notification 2016 of MoEF&CC.

3.5.16 Employment potential: During the construction of the road project around 1000 persons would be employed temporarily for a period of 2.5 years. However due to construction of toll plazas and Way Side Amenities approx. 300 persons will be employed on permanent basis. The total manpower requirement for the project is 1300. Preference will be given to local people for employment.

3.5.17 Benefits of the project: The proposed highway project shall have the advantage of simultaneous development as well as shall result in a shorter distance to travel. The junctions with existing road will be planned in the form of interchanges and flyover to ensure uninterrupted flow of traffic. The proposed road would act as the prime artery for the economic flow to this region. It will enhance economic development, provide employment opportunities to locals, strengthen tourist development, ensure road safety, and provide better transportation facilities and other facilities such as way side amenities. Vehicle operating cost will also be reduced due to improved road quality. The compensatory plantation and road side plantation shall further improve the air quality of the region.

3.5.18 Details of Court cases: No court case is pending against the proposed project.

3.5.19 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 271th meeting on 26th August, 2021 and **recommended** the proposal for grant of Terms of Reference (ToR) with the specific conditions, as mentioned

below, in addition to all standard conditions applicable for such projects:

- i.* Cumulative impact assessment study should be carried out along the entire stretch including the other packages and the current stretch under consideration.
- ii.* Fly ash shall be used in the project depending as per fly ash notification 2016 of MoEF&CC and details regarding this be submitted.
- iii.* The proponent shall carry out a detailed traffic flow study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/PUP (Pedestrian underpass) needs to be included.
- iv.* Road safety audit (along with accident/black spots analysis) by any third-party competent organization at all stages namely at detailed design stage, construction stage and pre-opening stage to ensure that the project road has been proposed considering all the elements of road safety.
- v.* Provide compilation of road kill data on the wildlife on the existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by the way of road kill management plan.
- vi.* The alignment of road should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent authorities. Alignment also should be such that it will avoid cutting old and large and heritage trees if any. All such trees should be geo-tagged, photographed and details be submitted in the EIA –EMP report.
- vii.* The proponent shall carry out a comprehensive socio-economic assessment and also impact on biodiversity with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people's dependency on fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels.
- viii.* As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfil these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.
- ix.* In pursuance of Ministry's OM no stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC.
- x.* The Action Plan on the compliance of the recommendations of the CAG as per

Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25th October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.

- xi. Passage for animal movement has to be detailed in the report (if alignment is passing through Forest area).
- xii. A comprehensive plan for plantation of three rows of native species, as per IRC guidelines, shall be provided by the state forest department. Such plantation will be over and above the compensatory afforestation. Tree species should be same as per the forest type and native to the region. A proper plan for green belt development including financial requirements should be developed by the state forest department and submitted along with EIA-EMP.
- xiii. The PP shall not use groundwater/surface water without obtaining approval from CGWA/SGWA as the case may be. The project proponent shall apply to the Central Ground Water Authority (CGWA)/State Ground Water Authority (SGWA)/Competent Authority, as the case may be, for obtaining No Objection Certificate (NOC), for withdrawal of ground water.
- xiv. Detailed Biodiversity assessment and conservation/mitigation plan be developed by a reputed institute or by a team of expert of national repute.
- xv. The proponent has to find out whether there are any riverine bird nesting site at Upstream / Downstream in the river crossing zones of the proposed project with the help of state forest department.
- xvi. Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers.
- xvii. Air pollution monitoring stations are to be installed.

Agenda No. 3.6

Development of Economic Corridors, Inter Corridors and Feeder Routes to Improve the Efficiency of Freight Movement in India Under Bharatmala Pariyojana (Lot - 5/Pkg.-4) Hassan – Huliya – Hiriya Route (EC-20) in the State of Karnataka by M/s National Highways Authority of India - Terms of Reference

[Proposal No. IA/KA/NCP/222443/2021 and File No. 10/34/2021-IA.III]

“The EAC noted that the Project Proponent/consultant have given under taking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent”

3.6.1. The project proponent M/s National Highways Authority of India along with the consultant made a presentation through Video Conferencing and provided the information-

3.6.2. The proposed project is for development of 4 lane access control Green field highway to improve the efficiency of freight movement under Bharatmala Pariyojana Lot-5/Pkg4. Total Length of this section is ~114.139 Km. The alignment shall start from Heggadihalli at Ch. 0.000 Km (12°59'17.50"N, 76°11'57.74"E) in Hassan district and ends at Hulugalakunte Ch. 114.139 Km (13°53'51.36"N, 76°35'57.79"E) on proposed bypass to Hiriyr on AH-48 (new number) in Chitradurga District. The proposed section will cover Hassan, Tumkur & Chitradurga districts in Karnataka state.

3.6.3. The proposed project falls under 7(f) - Highway, Category-A, as per EIA notification 2006. Total investment/cost of the project is Rs 221000 Lakhs (2210.00 Cr).

3.6.4. Total Land Acquisition Required for Proposed alignment is 513.63 Ha. It is proposed to acquire a strip of land of 45 m ROW for the proposed alignment. Detailed Land use/Land cover of project site is as given below:

Land pattern	% of land use	Land Area (Ha)	Length (km)
Barren	45.45%	233.443	51.876
Agriculture	42.45%	339.50	45.50
Forest	11.42%	58.95	13.035
Built up	0.68%	3.49265	0.776
Total Length			114.139

3.6.5. The land use pattern on 10.0 km either side of the project road is predominantly agriculture followed by barren land, some habitation and Forest Area. The road is passing through plain & rolling terrain.

3.6.6. The project doesn't cross any river and canals. There is an Uduvalli Lake within 1.8 Km from the project Site. The proposed alignment is planned in such a way that minimum water bodies are affected.

3.6.7. Water requirements: About 5000 KLD Water will be provided through bore wells/ water tankers with prior consent. In every workplace at suitable and easily accessible places a sufficient supply of temperate potable water (as per IS) will be provided and maintained. If the drinking water is obtained from an intermittent public water supply then, storage tanks will be provided. No Ground water will be envisaged, however, if required, CGWA permissions will be obtained.

3.6.8. Tree cutting: About 31860 nos. of tree is recorded in Corridor of Impact. Detailed tree survey will be conducted after TOR. Efforts will be made to minimize the trees loss by restricting tree cutting with formation width. Avenue plantation shall be carried out as per IRC SP21:2009 on available RoW apart from statutory requirements of Compensatory Afforestation. The tree enumeration for affected trees shall undertake during detailed EIA Study.

3.6.9. Diversion of forest land: The proposed project involves diversion of 58.95 ha forest land. Application for Forest Clearance is yet to be submitted. The Proposed alignment passes through Kudure Kanave reserved forest for length of 2.64 km. The alignment does not pass through any wild life sanctuaries and Eco sensitive area.

3.6.10. Land acquisition and R&R issues: Most of the land coming under the Project area is agricultural and barren land. Along with this, the alignment of highway passes through forest land. The land required for the construction of highway will be acquired by NHAI before the commencement of construction work. Land acquisition shall be undertaken as per the provision of LARR, 2013 and NHAI Act 1988 (with its amendments). Approximate 3000 structures are identified to be demolished. A total number of 77 Villages will be affected due to proposed road. The NHAI shall compensate the affected title holder as per NHAI Act 1956.

3.6.11. Two toll plazas are proposed at different locations & the median will beautified with shrubs and landscaping. The culverts, minor and major bridges are proposed at nala crossing. All Safety measures will be provided as per NHAI Safety Manual and IRC: SP 88, safety measures and MoRTH guidelines in this regard.

3.6.12. Employment potential: The highway project is expected to generate employment during construction phase. It is estimated that 500 Nos. direct employees will be required per day during construction of the highway. Indirect potential for generation of employment due to higher connectivity is having huge potential.

3.6.13. Benefits of the project: Proposed project will lead to development of supporting infrastructure (roads, power Supply, waste or waste water treatment, etc.). It will improve the welfare of the people near the Highway alignment as it opens up the chance of avenues for economic activities and employment like development of industries and housing. The project will give a better opportunity for educational, business and economic development along the highway. More mobility and accessibility will be available because of this highway development. This project will become a key role to give better connectivity to all infrastructures upcoming /proposed by Govt.

3.6.14. Details of Court cases: No court case is pending against the proposed project.

3.6.15. During the deliberation, the EAC noted the following:

- i. The proposed road is very closely passing through Mining area (86+640). Safety conditions should be adhered while considering these kinds of locations.*
- ii. The proponent should get confirmation from DFO stating that this project location does not come under Elephant Corridor.*

3.6.16. The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 271th meeting on 26th August, 2021 and **recommended** the proposal for grant of Terms of Reference (ToR) with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. Additional tunnels or over/underpasses should be explored in order to avoid the disturbance to existing forest cover and provide details in EIA-EMP.*
- ii. Mark all water bodies/rivers along the alignment and alignment should be such that it will avoid passing through/over wetlands/waterbodies.*
- iii. Fly ash shall be used in the project depending as per fly ash notification 2016 of MoEF&CC and details regarding this be submitted*

- iv. Apart from land compensation, the loss for crop has also to be compensated.
- v. Cumulative impact assessment study should be carried out along the entire stretch including the other packages and the current stretch under consideration.
- vi. The proponent shall carry out a detailed traffic flow study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/ PUP (Pedestrian underpass) needs to be included.
- vii. Road safety audit (along with accident/black spots analysis) by any third-party competent organization at all stages namely at detailed design stage, construction stage and pre-opening stage to ensure that the project road has been constructed considering all the elements of road safety.
- viii. Provide compilation of road kill data on the wildlife on the existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by the way of road kill management plan.
- ix. The alignment of road should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent authorities. Alignment also should be such that it will avoid cutting old and large and heritage trees if any. All such trees should be geo-tagged, photographed and details be submitted in the EIA –EMP report.
- x. The proponent shall carry out a comprehensive socio-economic assessment and also impact on biodiversity with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people's dependency on fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels.
- xi. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfil these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.
- xii. In pursuance of Ministry's OM no stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC.
- xiii. The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25th October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP

Report.

- xiv. Passage for animal movement has to be detailed in the report (if alignment is passing through Forest area).
- xv. A comprehensive plan for plantation of three rows of native species, as per IRC guidelines, shall be provided by state forest department. Such plantation will be over and above the compensatory afforestation. Tree species should be same as per the forest type and native to the region. A proper plan for green belt development including financial requirements should be developed by the state forest department and submitted along with EIA-EMP
- xvi. The PP shall not use groundwater/surface water without obtaining approval from CGWA/SGWA as the case may be. The project proponent shall apply to the Central Ground Water Authority (CGWA)/State Ground Water Authority (SGWA)/Competent Authority, as the case may be, for obtaining No Objection Certificate (NOC), for withdrawal of ground water.
- xvii. Detailed Biodiversity assessment and conservation/mitigation plan be developed by a reputed institute or by a team of expert of national repute. Detailed Wildlife Conservation Plan for the Animal Bypass/Under Pass be submitted from the competent authority.
- xviii. Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers.

Agenda No. 3.7

Any other Item with the Permission of Chair.

- i. Expansion of Port Facilities” at village Salaya, Taluka Khambhaliya, Jamnagar, Gujarat by M/s Essar Bulk Terminal (Salaya) Limited [File No. 10/16/2021-IA.III]

S. No	ToR Condition	Submission made by ESSAR
(i)	A huge quantity of reclamation of the land will be done for the project including construction of bunds. A detailed study on erosion and accretion at the site shall be conducted involving National Center for Coastal Research (NCCR), Chennai and a detailed report shall be submitted along with the EIA/EPM studies.	As NCCR has expressed their inability to have provisions to carry out any project/consultancy work for the private sector, It is requested to either suggest another institution which can carry out such studies or else allow us to select the expert agency to carry out such specific studies.
(xiv)	Study the impact of dredging and dumping and port operations on marine ecology and marine	

	biodiversity with specific focus on corals, mangroves and mud flat sand draw up a management and mitigation plan through NCCR.	
(vii)	Erosion and accretion study at the mouth of the creek which is adjacent to the proposed site be carried out by NIOT and submitted.	Erosion accretion study is part of ToR No.i, so it is requested to club these erosion and accretion studies and be carried out by single institute in order to have better coordination and outcome of the study. Since NCCR has expressed their inability to have provisions to carry out any project/consultancy work for the private sector, It is requested to either suggest another institution which can carry out such studies or else allow us to select the expert agency to carry out such specific studies.

The EAC, taking into account the submission made by the project proponent has a deliberation in its 271th meeting on 26th August, 2021 and agreed to the request made by the PP and recommended that the PP may select any authorized expert agency of national and international repute to carry out the studies.

ii. Matters related to green belt development by NHAI

During the recent site visit by the EAC Sub-Committee in Gujarat, and while travelling along few NHAI projects (Ahmedabad-Mundra), it was observed by the committee that there was no Green Belt plantation of any kind along the fully developed and operational highway and thus commitments made by the NHAI during EC process raises serious questions on the post construction implementation about green belt and compensatory afforestation. Similar observation was made on another highway in Madhya Pradesh (NH-3, Agra-Mumbai Highway). Committee felt the need for the Ministry to ask NHAI to do independent third-party audit of highways and green belt plantations and its current status.

Annexure-A

Following members were present during the 271th EAC (Infra-1) meeting held on 26th-27th August, 2021

S. No.	Name	Designation	Remarks	
			26 th July 2021	27 th July 2021
1.	Dr. Deepak Arun Apte	Chairman	Present	Present
2.	Sh. S. Jeyakrishnan	Member	Present	Present
3.	Sh. Manmohan Singh Negi	Member	Present	Present
4.	Sh. ShamWagh	Member	Present	Present
5.	Dr. Mukesh Khare	Member	Absent	Absent
6.	Dr. Ashok Kumar Pachauri	Member	Present	Present
7.	Dr. V. K Jain	Member	Present	Present
8.	Dr. Manoranjan Hota	Member	Present	Present
9.	Sh. R Debroy	Member	Absent	Absent
10.	Dr. Rajesh Chandra	Member	Absent	Absent
11.	Dr. M. V Ramana Murthy	Member	Present	Present
12.	Smt. Bindu Manghat	Member	Absent	Absent
13.	Dr. Niraj Sharma	Member	Present	Present
14.	Sh. Amardeep Raju,	Scientist'E' & MS, MoEF&CC	Present	Present
15.	Dr. Rajesh Prasad Rastogi	Scientist'C', MoEF&CC	Present	Present
16.	Smt. Harshulika	Consultant	Present	Present
17	Sh. P. Balakumar	RA, Infra-1, MoEF&CC	Present	Present